LISTING OF CLAIMS:

1. (Withdrawn) A production process for methanol comprising a synthetic gas production step in which hydrocarbon is reacted with steam to generate synthetic gas comprising main components of hydrogen, carbon monoxide and carbon dioxide, a methanol synthesis step in which said synthetic gas is reacted on a methanol synthesis catalyst and resulting crude methanol is recovered in the form of liquid, and a distillation step in which said recovered crude methanol is distilled to be separated into waste water containing low boiling organic compounds and high boiling organic compounds and refined methanol, wherein used in said methanol synthesis step is a reactor which comprises a reaction tube, an inner tube closed at a lower end thereof disposed almost in the center of the reaction tube, a central tube in which unreacted feed gas flows disposed almost in the center of the inner tube, and a circular catalyst layer charged with a granular catalyst disposed in a circular space surrounded by the reaction tube and the inner tube and in which said central tube is disposed almost in the center of a wholly or partially detachable shielding plate provided at the upper end of the reaction tube.

2. (Withdrawn) The production process for methanol as described in claim 1, wherein in the methanol step, the synthetic gas is reacted on the methanol syntheses catalyst at a reaction pressure of 80 to 120 $kg/cm^2 \cdot G$, and crude methanol is recovered in the form of liquid.

3. (Withdrawn) The production process for methanol as described in claim 1, wherein in the methanol synthesis step, the synthetic gas is reacted on the methanol synthesis catalyst at a catalyst layer inlet temperature of 180 to 260° C, and crude methanol is recovered in the form of liquid.

4. (Currently Amended) A reactor for methanol synthesis comprising at least one reaction tube disposed on the inside thereof in communication with an upper chamber into which unreacted gas is fed; an inner tube disposed almost in the center of the reaction tube to form a first passageway of circular cross section between the inner tube and reaction

tube with the inner tube being closed at a lower end thereof, with said lower end being in communication with a lower chamber in said reactor at an end thereof symmetrically opposite said upper chamber; a charge of granular catalyst being stored in said first passageway to form a catalyst charged part therein surrounded by said reaction tube; a central tube disposed almost in the center of the inner tube with the central tube extending downwardly from said upper chamber a fixed distance above said lower end of said reaction tube for forming a second passageway of circular cross section between said central tube and said inner tube; ~~a~~ an upper shielding plate for partitioning the upper end of said reaction tube from said upper chamber and a lower shielding plate for partitioning the lower end of said reaction tube from said lower chamber, with said upper and lower chambers each defining a confined space of predetermined volume at symmetrically opposite ends of said reactor to facilitate a smooth flow of gas therethrough, wherein said unreacted gas flows downwards from said upper chamber through the upper part of the central tube flowing from said second passageway through said catalyst in said first passageway from the upper end of said first passageway and discharges from an outlet located in said lower end and wherein the length of said central tube is between 1/10 to 2/3 of the length of the reaction tube measured from the upper end of the reaction tube.

5. (Previously Presented) The reactor for methanol synthesis as described in claim 4, wherein the inner tube is disposed almost vertically in said reaction tube.

6. (Cancelled)